ABSTRACT OF THE DISCLOSURE

A spiral separation membrane element effective in reducing the pressure loss around core tube perforated parts, which is problematic especially in low-pressure operations. The spiral separation membrane element comprises a perforated cored tube 5 and, spirally wound therearound, separation membranes 1, feed-side passage materials 2, and permeation-side passage materials 4, the separation membranes 1 and the passage materials 2 and 4 being wound around the cored tube 5 so that the feed-side passage materials 2 and the permeation-side passage materials 4 are disposed respectively on the feed side and permeation side of the separation membranes 1 and that a permeation-side passage material 10 which is the same as or different from the permeation-side passage materials 4 is interposed at the periphery of the perforated cored tube 5, wherein the effective perforated-part area as calculated by multiplying the total area of the perforated parts in the core tube 5 by the percentage of openings of one layer of the permeation-side passage material surrounding the core tube 5 is at least 1.0 time the inner cross-sectional area of the core tube 5.